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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,405	01/05/2005	Johann Bonn	263493US0PCT	9920

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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METZMAIER, DANIEL S

ART UNIT	PAPER NUMBER
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1796

NOTIFICATION DATE	DELIVERY MODE
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10/18/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/519,405	<b>Applicant(s)</b> BONN ET AL.	
	<b>Examiner</b> Daniel S. Metzmaier	<b>Art Unit</b> 1796	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-10 and 12-19 is/are pending in the application.
- 4a) Of the above claim(s) 12-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-10 and 16-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Claims 1, 3-10, 12-19 are pending.

#### ***Election/Restrictions***

1. Claims 12-15 have withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 26 April 2007.

The requirement is still deemed proper and was therefore made FINAL in the Office Action mailed 25 June 2007.

2. This application contains claims 11-15 drawn to an invention nonelected with traverse in the reply filed on 26 April 2007. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 3-10 and 16-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amended claims have been

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amended to recite: "wherein said combination is present in an amount producing (1) a greater antifoam and/or deaerator effect than the effect produced using the same amount of component (i) and excluding component (ii), and (2) a greater antifoam and/or deaerator effect than the effect produced using the same amount of component (ii) and excluding component (i).". While applicants assert this property for the exemplified compositions (page 20, instant specification) compared with the comparative examples, applicants did not set forth said limitation for the full scope of the claimed compositions. Applicants' claims appear to recite a limitation of synergy that was not disclosed in the original disclosure for compositions other than the examples.

This is a new matter rejection.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claims 16-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants employ idiomatic English in claims 16 and 17, i.e., "the polyglyceryl used to make the polyglyceryl ester is obtained a mixture of diglycerol, . . . .".

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 10 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Asahi Denka Kogyo KK, JP 2000-230084 A, as evidenced by Derwent Abstract AN 2000-631444, and the Machine Translation based on JP 2000-230084 A. Asahi Denka Kogyo KK (abstract) discloses the combination of fatty acid bis-amides (paragraph [0014] specifically mentions methylenebis octadecanamide) with polyglyceryl esters having 5 to 80 % esterification content. The polyolefin monomer resin compositions employing the bis-amide and polyglyceryl esters would inherently function as additives for antifoams and/or de-aerators as claimed.

To the extent the Asahi Denka Kogyo KK reference differs from the claims in the concentration of the combination, the Asahi Denka Kogyo KK reference compositions are otherwise anticipated. Applicants have not shown the instant claim language distinguishes the claims from the disclosed compositions. See MPEP 2112(III) and (V). Variation of the relative concentrations of (A) and (B) would have been obvious to one having ordinary skill in the art for the purpose of the reference taught antisettling properties.

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10. Claims 1, 3-4, 7-10 and 18-19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Henkel KgaA, DE 198 57 204 A, as evidenced by Millhoff et al, US 6,340,662. Millhoff et al is English language family equivalent to Henkel. See Table 1.

To the extent the Millhoff et al reference differs from the claims in the concentration of the combination, the Millhoff et al reference discloses the ratio reading on that claimed in claim 4 and concentrations that are claimed in claim 8. The compositions are otherwise anticipated and employed in the same utility. Applicants have not shown the instant claim language distinguishes the claims from the disclosed compositions. See MPEP 2112(III) and (V).

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henkel KgaA, DE 198 57 204 A, as evidenced by Millhoff et al, US 6,340,662. Millhoff et al is English language family equivalent to Henkel. See Table 1. The citations hereafter refer to the Millhoff et al '662, which is the same or substantially the disclosure as Henkel KgaA.

Henkel KgaA and Millhoff et al differ from claim 5 in the ratio of the polyglyceryl esters to bisamides of 3:1 to 1.5:1.

Henkel KgaA and Millhoff et al (claim 1) discloses the use of 2 to 15 % by weight of nonionic emulsifier. At 15 % by weight of polyglyceryl esters, the polyglyceryl ester to bisamide ratio of the example would be about 2.5 : 1.

It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to vary the concentrations of the polyglyceryl ester emulsifiers

disclosed in the Henkel KgaA and Millhoff et al references for the advantage of providing a homogeneous dispersion of the defoaming agents in said dispersion at their point of use.

12. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henkel KgaA, DE 198 57 204 A, as evidenced by Millhoff et al, US 6,340,662, in view of Schuhmacher et al, US 5,700,351, or Wegner et al, US 5,236,499. Millhoff et al is English language family equivalent to Henkel. See Table 1. The citations hereafter refer to the Millhoff et al '662, which is the same or substantially the disclosure as Henkel KgaA.

The Millhoff et al reference differs from claims 16 and 17 in the use of triglyceryl fatty acid diesters rather than mixed glycerol esters.

Schuhmacher et al and Wegner et al (title and abstract) disclose defoaming compositions for the paper industry in the form of oil-in-water emulsions employing fatty alcohols, hydrocarbons (e.g., oils), esters and polyglyceryl esters having at least 20% esterification of a polyglyceryl mixture.

These references are combinable because they teach aqueous dispersions as defoaming compositions for the paper industry. It would have been *prima facie* obvious to one of ordinary skill in the art at the time of applicants' invention to employ the aqueous compositions of Schuhmacher et al and Wegner et al with those of Kavchok et al for the purpose of defoaming paper industry processes as a point of law.

It is generally *prima facie* obvious to use in combination two or more ingredients that have previously been used separately for the same purpose in order to form a third

composition useful for that same purpose. *In re Kerkhoven*, 626 F.2d 846, 205 USPQ 1069 (CCPA 1980); *In re Pinten*, 459 F.2d 1053, 173 USPQ 801 (CCPA 1972); *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971); *In re Crockett*, 279 F.2d 274, 126 USPQ 186 (CCPA 1960). As stated in *Kerkhoven* and *Crockett*, the idea of combining them flows logically from their having been individually taught in the prior art.

Furthermore, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of applicants' invention to employ the art recognized secondary components as a dispersion of hydrophobic solid in a water insoluble liquid taught in the Millhoff et al reference for aqueous defoaming dispersions into the aqueous dispersions of Schuhmacher et al and Wegner et al for the defoaming properties of the dispersed hydrophobic solids.

13. Claims 1, 3-10 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kavchok et al, US 4626,377, taken with Schuhmacher et al, US 5,700,351, or Wegner et al, US 5,236,499. Kavchok et al (column 3, lines 37-54; example and claims) discloses aqueous hydrophobic defoaming dispersions employing a fatty alcohol of 14-28 carbon atoms, a fatty acid, fatty soap, a nonionic surfactant and a secondary hydrophobic solid dispersion in a water insoluble liquid including bisamides dispersed in mineral oil (example 4 and claims). Kavchok et al (column 1, lines 21 et seq) discusses foaming as a problem in a number of chemical industries including the pulp and paper industries.

Kavchok et al differs from the claims in the incorporation of a polyglyceryl ester into the compositions.



Schuhmacher et al and Wegner et al (title and abstract) disclose defoaming compositions for the paper industry in the form of oil-in-water emulsions employing fatty alcohols, hydrocarbons (e.g., oils), esters and polyglyceryl esters having at least 20% esterification of a polyglyceryl mixture.

These references are combinable because they teach aqueous dispersions as defoaming compositions for the paper industry. It would have been *prima facie* obvious to one of ordinary skill in the art at the time of applicants' invention to employ the aqueous compositions of Schuhmacher et al and Wegner et al with those of Kavchok et al for the purpose of defoaming paper industry processes as a point of law.

It is generally *prima facie* obvious to use in combination two or more ingredients that have previously been used separately for the same purpose in order to form a third composition useful for that same purpose. *In re Kerkhoven*, 626 F.2d 846, 205 USPQ 1069 (CCPA 1980); *In re Pinten*, 459 F.2d 1053, 173 USPQ 801 (CCPA 1972); *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971); *In re Crockett*, 279 F.2d 274, 126 USPQ 186 (CCPA 1960). As stated in *Kerkhoven* and *Crockett*, the idea of combining them flows logically from their having been individually taught in the prior art.

Furthermore, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of applicants' invention to employ the art recognized secondary components as a dispersion of hydrophobic solid in a water insoluble liquid taught in the Kavchok et al reference for aqueous defoaming dispersions into the aqueous dispersions of Schuhmacher et al and Wegner et al for the defoaming properties of the dispersed hydrophobic solids.

### ***Double Patenting***

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claims 1, 3-5, 7-10 and 16-19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over at least claims 1, 5 and 8 of copending Application No. 10/570,154. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims encompass the copending claims that further include finely divided, inert solids. The instant claimed employ open transitional language, e.g., "comprising". The instant claims are generic to and encompass the use of inert solids including cellulose. See the paragraph bridging pages 8 and 9 of the instant specification. Based on copending claim 8, the expectation is that the amides and esters are useful in all ratios. Copending claim 5 sets forth fatty alcohols

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Response to Arguments***

16. Applicant's arguments filed 01 August 2007 have been fully considered but they are not persuasive.

17. Applicants (page 7 of response) assert the Millhoff et al reference neither discloses nor suggest the claimed hydrophobic compound. This has not been deemed persuasive since a paraffin wax is a hydrocarbon having a boiling point greater than 200°C. Clearly paraffins are hydrocarbons. Paraffin waxes having a solidification point up to 90°C would be expected to inherently have a boiling point of greater than 200°C. The boiling point generally in excess of the flash point, which can be well in excess of 200°C.

18. Applicants (page 7) further assert the Millhoff et al reference fails to disclose the combination of oligoglycerol esters with bis-fatty acid amide in amounts now claimed in by the present claims. Applicants assertions are vague and it is unclear what claims applicants are referring. To the extent that applicants are referring to claims 4-5, example E4 of the Millhoff et al reference discloses 6 % of bis-amide and 2.5 % of the oligoglycerol fatty esters. This clearly falls between the range 10 : 1 to 1 : 10. Claim 5 is addressed in the obviousness rejection over the Millhoff et al reference.

Clearly the disclosed concentration of 2.5 % by weight reads on the claim 8 range of from 0.1 to 50 % by weight of polyglyceryl ester.

To the extent that applicants are referring to the amended functionally claimed "combination in an amount producing . . . .", applicants have not shown that the Millhoff et al reference compositions do not employ the claimed concentrations of the combination. Attention is directed to MPEP 2112(III) and (V), "A rejection under 35 U.S.C. 102/103 can be made when the prior art product seems to be identical except that the prior art is silent as to an inherent characteristic" and "Once a reference teaching product appearing to be substantially identical is made the basis of a rejection, and the examiner presents evidence or reasoning tending to show inherency, the burden shifts to the applicant to show an unobvious difference".

19. Applicants (page 8) assert the Asahi Denka Kogyo KK reference lacks the relative concentrations presently claimed. This has not been deemed persuasive since the relative concentrations are clearly encompassed by applicants and applicants have not shown said claims to be distinguished therefrom. See at least JPO abstract.

20. Applicants (page 9) assert that the results of the examples show the combination produces unexpected results and obviates the rejection over Kavchok et al, US 4626,377, taken with Schuhmacher et al, US 5,700,351, or Wegner et al, US 5,236,499. This has not been deemed persuasive since only example 3 and comparative examples 3 and 4 show an improvement. It is unclear if said difference is statistically significant.

Furthermore, the example 3 is not commensurate in scope with the claims nor is it clear from the record why the comparative examples vary in the fatty alcohol content. All the examples employ the same polyglyceryl esters but the claims are not restricted

thereto. Examples 1 and 2 do not compare compositions in the absence of the polyglyceryl esters.

21. Applicants (page 10) assert the copending 10/570,154 lacks the claimed combination and the claimed concentrations of said combination. This has not been deemed persuasive. Co-pending '154 (claim 8) specifically claims amides, which (page 4, lines 34 et seq, copending specification) set forth: "organic compounds which are known from the literature and have an antifoam action, such as organic esters and/or amides . . .". Bis-stearamides are well known in the art as having antifoam action. This is readily apparent from applicants own admission of the prior art, e.g., WO-A-94/20680, which employs ethylenebisstearamide or other aliphatic diamides. Attention may also be directed to Pachai et al, US 6,251,958.

### ***Conclusion***

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pachai et al, US 6,251,958 and cited in the International SR, is cumulative or less pertinent than the above art relied on in the rejections.

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not


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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Daniel S. Metzmaier  
Primary Examiner  
ART UNIT 1796